RADIONUCLIDES IN NATURAL ENVIRONMENT OBJECTS OF NURATAU

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With usage of gamma-ray scintillation spectrometer with the crystal of NaJ(Tl) in Marinelly vessel geometry (V=1 liter) was studied the content of natural radionuclides in uranium-thorium family and ^{40}K in the probes of soil, bottom deposits, rocks and flora of selected from different parts of range Nuratau and adjoining to it Farish steppe. The content of technogenous ^{137}Cs and cosmogenous ^{7}Be were also studied in the surface probes of soil.

Processing of probes of spectra was conducted with the help of spectra of standard sources of ^{226}Ra, ^{232}Th, ^{40}K and ^{137}Cs from the set of volume measure of activity of special purpose with fillers with the density from 0,24 to 1,86 kg/l.

Limitary values of activity of natural radionuclides in the probes and reserves of ^{137}Cs and ^{7}Be in surface layers of soil are shown in table.

Table (*Selected 15.04.2004)

Probes (quantity)	A_{av}, (A_{min}-A_{max}) Bq/kg			Q, Bq/m^2	
	^{226}Ra	^{228}Ac	^{40}K	$^{137}Cs\times10^3$	^{7}Be*)
Soil (14)	39 (19-50)	51 (28-64)	731 (538-862)	2,8 (3,5-4,6)	132 (84-246)
Granite (7)	27 (17-52)	35 (21-74)	935		
Slate (4)	18 (14-29)	41 (34-48)	470 (400-550)		
Sandstone (3)	21 (17-25)	41 (32-50)	400 (340-470)		
Flora (10)	27 (10-38)	34 (12-45)	310 (220-470)		